

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

PERMITTEE

Monsanto Company
Attn: John Endsley
36142 East State Route 10
Mason City, Illinois 62664

<u>Application No.:</u> 08020046	<u>I.D. No.:</u> 125808AAE
<u>Applicant's Designation:</u>	<u>Date Received:</u> February 19, 2008
<u>Subject:</u> Soybean Seed Processing Plant	
<u>Date Issued:</u>	<u>Expiration Date:</u>
<u>Location:</u> 36142 East State Route 10, Mason City, Mason County	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Production:

Two (2) Receiving Pits (EU-1a and EU-1b);
One (1) Scalperator (EU-20) Controlled by Cyclone;
Twelve (12) Bulk Storage Bins;
Two (2) Cleaner Bins (EU-10a and EU-10b) Controlled by Baghouses (CE-1 and CE-2);
Two (2) Cleaners (EU-9a and EU-9b) Controlled by Baghouses (CE-1 and CE-2);
Two (2) Color Sorter Bins Controlled by Baghouses (CE-1 and CE-2);
Four (4) Color Sorters (EU-51, EU-52, EU-53, and EU-54) Controlled by Two (2) Baghouses (CE-1 and CE-2);
Four (4) Gravity Surge Bins (EU-15a, EU-15b, EU-16a, and EU-16b) Controlled by Two (2) Baghouses (CE-1 and CE-2);
Four (4) Gravity Tables (EU-7a, EU-7b, EU-8a, and EU-8b) Controlled by Two (2) Baghouses (CE-1 and CE-2);
Two (2) Treaters (EU-11a and EU-11b) Controlled by Cartridge Filter (CE-08);
Sixteen (16) Bagging Bins (EU-14a - EU-14p) Controlled by Cartridge Filter (CE-08);
Two (2) Cull Bins (EU-17a and EU-17b);
Two (2) Baggers (EU-18 and EU-19) Controlled by Cartridge Filter (CE-08);
Internal Transfer;
Two (2) Truck Loadouts (Cull and True Bulk);
Two (2) Electric Heated Treater Conveyors Controlled by Cartridge Filter (CE-08)

Pre-Foundation:

One (1) Receiving Pit (EU-06);
Eighteen (18) Friesen Bins;
Two (2) Receiving Bins;
One (1) Cull Bin;
One (1) Box Dumper (EU-36) Controlled by Baghouse (CE-5);
Ten (10) Small Lot Bins (EU-41a - EU-41j);
One (1) Cleaner Surge Bin (EU-42) Controlled by Baghouse (CE-5);
One (1) Cleaner Controlled by Baghouse (CE-5);

Two (2) Spirals (EU-37a and EU-37b) Controlled by Baghouse (CE-5);
Two (2) Gravity Surge Bins (EU-38) Controlled by Baghouse (CE-5);
Two (2) Gravity Tables (E-33 and EU-34) Controlled by Baghouse (CE-5);
One (1) Small Lot Box Dumper;
One (1) Small Lot Surge Bin;
One (1) Small Lot Cleaner;
One (1) Conditioning Bin Controlled by Baghouse (CE-5);
Two (2) Treaters (EU-44a and EU-44b) Controlled by Cartridge Filter (CE-6);
Four (4) Bagging Bins (EU-39a - EU-39d) two (2) are controlled by Baghouse(CE-5) and two (2) are controlled by Cartridge Filter (CE-6);
One (1) Bagger Bin (EU-40) Controlled by Cartridge Filter (CE-6);
One (1) Bagger (EU-43) Controlled by Cartridge Filter (CE-6);
One (1) Mini Bulk Bagger Bin Controlled by Cartridge Filter(CE-6);
One (1) Mini Bulk Bagger Controlled by Cartridge Filter (CE-6);
Internal Transfer and
Truck Loadout (Cull)

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Particulate Matter less than 10 microns (PM₁₀) and Volatile Organic Material (VOM), 10 tons/year for any single Hazardous Air Pollutant (HAP), and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) for this location.
- 2a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meter (1000 foot) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including

any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

- d. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- e. Housekeeping Practices. Pursuant to 35 Ill. Adm. Code 212.461(b), all grain-handling and grain-drying operations, regardless of size, must implement and use the following housekeeping practices:
 - i. Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation.
 - ii. Cleaning and Maintenance.
 - A. Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.
 - B. Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.
 - C. The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.
 - iii. Dump Pit.
 - A. Aspiration equipment shall be maintained and operated.
 - B. Dust control devices shall be maintained and operated.
 - iv. Head House. The head house shall be maintained in such a fashion that visible quantities of dust or dirt are not allowed to escape to the atmosphere.
 - v. Property. The yard and driveway of any source shall be asphalted, oiled or equivalently treated to control dust.
 - vi. Housekeeping Check List. Housekeeping check lists shall be completed by the manager and maintained on the premises for inspection by Illinois EPA personnel.
- 3. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of

sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.

4. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K (Use of Organic Material) shall apply only to photochemically reactive material.
5. This permit is issued based on the source not being subject to the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD, because the permanent storage capacity is less than 88,100 m³ (ca. 2.5 million U.S. bushels).
- 6a. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- b. Pursuant to 35 Ill. Adm. Code 212.461(a), 35 Ill. Adm. Code 212.302(a), 212.321, and 212.322 shall not apply to grain-handling and grain-drying operations, portable grain-handling equipment and one-turn storage space.
- c. Pursuant to Section 9(f) of the Illinois Environmental Protection Act (Act), any grain elevator located outside of a major population area, as defined in Section 211.3610 of Title 35 of the Illinois Administrative Code, shall be exempt from the requirements of 35 Ill. Adm. Code 212.462 of Title 35 of the Illinois Administrative Code provided that the elevator:
 - i. Does not violate the prohibitions of Section 9(a) of the Act or have a certified investigation, as defined in Section 211.970 of Title 35 of the Illinois Administrative Code, on file with the Illinois EPA; and
 - ii. Is not required to obtain a Clean Air Act Permit Program permit pursuant to Section 39.5 of the Act. Notwithstanding the above exemption, new stationary source performance standards for grain elevators, established pursuant to Section 9.1 of the Act and Section 111 of the federal Clean Air Act, shall continue to apply to grain elevators.
7. Pursuant to 35 Ill. Adm. Code 215.541, the provisions of 35 Ill. Adm. Code 215.301 and 215.302 shall not apply to the spraying or use of insecticides, herbicides or other pesticides.

- 8a. Each dump pit shall be inspected for proper operation while receiving is occurring, at least once each week (Monday through Sunday) when grain is received.
- b. The grain transfer (internal transfer), and any grain cleaning shall be inspected for presence of visible emissions from internal transfer and cleaning, while such activity is occurring, at least once each week when such activity is performed.
- c. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic inspection and maintenance on the equipment such that equipment are kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
- d. The baghouses, cartridge filters, and cyclone shall be in operation at all times when the associated, scalperator, cleaners, color sorters, surge/storage bins, gravity tables, treaters, bagging bins, cull bins, baggers, internal transfer, box dumper, spirals, and conditioning bin are in operation and emitting air contaminants.
- e. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in material or installation of controls, in order to eliminate the odor nuisance.
- 9a. Emissions and operation of the following equipment shall not exceed the following limits:

Item of Equipment	Throughput		Emission Factor		E M I S S I O N S			
	(T/Hr)	(T/Yr)	PM (lb/T)	PM ₁₀ (lb/T)	PM (lb/Hr)	(T/Yr)	PM ₁₀ (lb/Hr)	(T/Yr)
Receiving Pits	336.0	315,000	0.035	0.0078	11.76	5.51	2.62	1.23
Scalperator	60.0	150,000	0.375	0.229	4.50	5.63	2.75	3.43
Receiving/Storage								
Bins	387.0	337,500	0.025	0.0063	9.68	4.22	2.44	1.06
Box Dumpers	9.0	28,200	0.061	0.034	0.01	0.02	0.01	0.01
Aspirator	5	15,000	0.375	0.229	0.04	0.06	0.02	0.03
Cleaners	41.0	178,200	0.375	0.229	0.31	0.67	0.19	0.41
Spirals	10.0	15,000	0.061	0.034	0.01	0.01	0.01	0.01
Color Sorters	96.0	300,000	0.061	0.034	0.12	0.18	0.07	0.10
Gravity Tables	47.0	262,300	0.081	0.049	0.08	0.21	0.05	0.13
Treaters	45.0	165,000	0.061	0.034	0.05	0.10	0.03	0.06
Surge/Storage								
Bins	302.0	834,096	0.025	0.0063	0.15	0.21	0.04	0.05
Cull Bins	90.0	150,000	0.025	0.0063	2.25	1.88	0.57	0.47
Baggers	89.0	330,000	0.061	0.034	0.11	0.20	0.06	0.11
Internal Transfer	135.0	495,000	0.061	0.034	0.82	1.51	0.46	0.84
Truck Loadouts	81.0	157,500	0.086	0.029	6.97	6.77	2.35	2.28
					Total:	27.17		10.23

These limits are based on the use of standard emission factors (Table 9.9-1-1, AP-42, Volume I, Fifth Edition, Update 2003, May 2003) for all units except the gravity tables (which are based on stack test data at a similar source), 98% control efficiency for baghouse and cartridge filters, 80% control efficiency for cyclone, 90% control of internal transfer (covered conveyors), and maximum process throughputs.

- b. Emissions and operation of the treaters shall not exceed the following limits:

Item of Equipment	VOM Usage		Combined HAP Usage		VOM Emissions		Combined HAP Emissions	
	(lbs/Hr)	(T/Yr)	(lbs/Hr)	(T/Yr)	(lbs/Hr)	(T/Yr)	(lbs/Hr)	(T/Yr)
Treaters EU-11a & EU-11b	21.73	46.55	0.90	3.80	21.73	46.55	0.90	3.80
Treaters EU-44a & EU-44b	5.44	5.50	0.45	0.45	5.44	<u>5.50</u>	0.45	<u>0.45</u>
					Totals:	52.05		4.25

These limits are based on the maximum treatment material usage, the maximum VOM and HAP content of the treatment materials, and the maximum application rates and a maximum throughput of 165,000 tons per year of grain.

- c. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 10a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the

emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Condition 11 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 11. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 12. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
- 13. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.

- 14a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Records of housekeeping check lists;
 - ii. Vendor recommendations at the facility and be available for inspection and copying by the Illinois EPA;
 - iii. Records for the inspections required by Conditions 8(a) through (c) with date, time and observations if such information is not incorporated in the housekeeping check list.
 - iv. Records addressing use of good operating practices for the baghouses and cyclone:
 - A. Records for periodic inspection of the baghouses, cartridge filters, and cyclone with date, individual performing the inspection, and nature of inspection; and
 - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - v. Amount of grain/seed received (tons/month and tons/year);
 - vi. Amount of grain/seed processed (tons/month and tons/year);
 - vii. Amount of seed treatment material used in the seed treaters (gallons/month and gallons/year);
 - viii. VOM and HAP content of seed treatment material used in the seed treaters (% by weight);
 - ix. Density of seed treatment material used in the seed treaters (lbs/gallon); and
 - x. Monthly and annual emissions of PM, PM₁₀, VOM, and HAPs from the source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
15. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the

Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.

16a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
412 SW Washington Street, Suite D
Peoria, Illinois 61602

If you have any questions on this permit, please contact Mike Dragovich at 217/785-1705.

Raymond E. Pilapil
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

REP:MJD:psj

cc: Illinois EPA, FOS Region 2
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the Soybeans Seed Processing Plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, (e.g., 100 tons per year of PM₁₀ and VOM, and 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAP) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)				
	<u>PM</u>	<u>PM₁₀</u>	<u>VOM</u>	<u>Single HAP</u>	<u>Total HAPs</u>
Receiving Pits	5.51	1.23			
Scalperator	5.63	3.43			
Receiving/Storage Bins	4.22	1.06			
Box Dumpers	0.02	0.01			
Aspirator	0.06	0.03			
Cleaners	0.67	0.41			
Spirals	0.01	0.01			
Color Sorters	0.18	0.10			
Gravity Tables	0.21	0.13			
Treaters	0.10	0.06	52.05	4.25	4.25
Surge/Storage Bins	0.21	0.05			
Cull Bins	1.88	0.47			
Baggers	0.20	0.11			
Internal Transfer	1.51	0.84			
Truck Loadouts	6.77	2.28			
Totals	27.17	10.23	52.05	4.25	4.25